

Monthly Homestake Meeting for Public Stakeholders
Monday, June 3, 2019, 1:00 pm (MDT), 3:00 pm (EDT)
Toll Free Number: (b) (6)
Participant passcode: (b) (6)

Topics for Discussion

- **Homestake (HMC) Current Operational Status**
 - Reverse Osmosis Plant
 - Zeolite Treatment System
 - Evaporation Ponds
 - San Andres Aquifer Wells and Water Use
- **HMC Materials License SUA-1471**
 - [Link: Materials License SUA-1471, Amend 53 4/2/19 \(ML18354B131\)](#)
- **HMC Amendment Requests**
 - [Link to Zeolite Treatment System amendment request](#)
 - [Link to Federal Register Notice](#)
 - [Link to NRC11/15/18 draft RAIs ML18320A035](#)
 - [NRC 1/25/19 Request for Additional Information \(ML18218A560\)](#)
 - [Link: 5/17/19 HMC response to RAI \(ML19149A366\)](#)
 - [Link to Groundwater Monitoring Plan amendment request](#)
 - [Link to Federal Register Notice](#)
 - [NRC 9/28/18 Issued RAIs](#)
 - [HMC 10/18/18 response to RAIs ML18298A019](#)
 - [Link: 2019 financial surety LA request 3/30/19 \(ML19098B551\)](#) current surety = \$83,455,82.00
 - [Link: HMC Radiation Protection LA withdraw letter 4/12/19 \(ML19109A110\)](#)
- **HMC Land Application Impact Assessment**
 - [Link to 07/02/18 HMC Final Status Survey Report \(pkg ML18186A577\)](#)
 - [Link to NRC 08/17/18 RAIs \(ML18205A460\)](#)
 - [Link to HMC 09/20/18 Response to RAIs \(pkg ML18269A194\)](#)
 - [Link: ORISE Land Application Confirmatory Survey Rpt \(ML19046A072\)](#)
- **HMC Root Cause Analysis submitted July 27, 2018**
 - [Link to 7/27/2018 HMC Root Cause Analysis ML18200A068](#)
- **HMC Self-Assessment submitted August 31, 2018**
 - [Link to 08/31/2018 Self-Assessment ML18248A265](#)
- **HMC GCAP**
 - [Link to 12/14/18 HMC contractor selection letter \(ML18354A745\)](#)
 - [Link to 12/31/18 NRC approval letter \(ML18355A893\)](#)
 - [Link: 12/04/19 GCAP TOC \(ML19035A193\)](#)
 - [Link: Preliminary Groundwater Flow and Transport Model Status Rpt \(ML19071A309\)](#)
- **Request for Clarification- Use of 5-Spot Injection/Collection Pattern (removed next Agenda)**
 - [Link to 10/19/2018 request letter ML18299A082](#)
 - [Link to NRC 4/2/2019 5-spot letter \(ML19050A017\)](#)
 - [Link: NRC 4/2/2019 5-spot review \(ML19050A018\)](#)

- **Information on Well 943**
 - [NRC 1/24/19 response letter \(ML19002A503\)](#)
 - [Link: 5/10/19 HMC response to NRC RAI \(ML19143A097\)](#)
- **HMC/NRC Publicly noticed meeting: White Paper & Documents (removed next Agenda)**
 - [Evaluation of Water Quality in Regard to Site Bkgd Stds ML19036A674](#)
 - [Evaluation of Water Quality in Regard to Site Bkgd Stds Attach A ML19036A686](#)
 - [Evaluation of Water Quality in Regard to Site Bkgd Stds Attach B ML19036A694](#)
 - [HMC White Paper ML19025A300](#)
 - [Link: 2019.02.01 USGS Paper Anthropogenic Variability of U @ Well Scale \(ML19050A424\)](#)
- **Other HMC Correspondence**
 - [Link: HMC Responsible Official Designation \(D Pierce\) 5/1/19 \(ML19141A051\)](#)
- **NRC Inspection Reports**
 - [Link to 04/20/2017 IR 2016-001 ML17088A761](#)
 - [Link to 07/06/2017 IR 2017-001 ML17164A088](#)
 - [Link to 12/20/2017 IR 2017-002 ML17353A414](#)
 - [Link to 05/03/2018 IR 2018-001 ML18115A480](#)
 - [Link to 11/26/2018 IR 2018-002 ML18303A199](#)
 - March 2019 inspection report not published at this time
- **HMC Annual Reports**
 - [Link: 2017 Annual Report \(ML18102A970\)](#)
 - [Link: 2018 Annual Report \(ML19101A375\) \(877 pages\)](#)
- **HMC Semi-Annual Reports**
 - [Link: Jan-June 2018 Semi-Annual Report \(ML18240A228\)](#)
 - [Link: Jul-Dec 2018 Semi-Annual Report \(ML19046B127\)](#)
- **HMC Water Use Reports (last 6 months)**
 - [Link to 10/2018 water use report ML18324A579](#)
 - [Link to 11/2018 water use report ML18351A037](#)
 - [Link to 12/2018 water use report ML19022A119](#)
 - [Link: 01/2019 water use report \(ML19052A058\)](#)
 - [Link: 02/2019 water use report \(ML19093B150\)](#)
 - [Link: 03/2019 water use report \(ML19107A034\)](#)
- **HMC DP-200 Quarterly Reports (HMC UIC wells, their status and location)**
 - [Link: DP-200 1st Quarter 2019 Report \(ML19123A079\)](#)
- **Letter from Homestake Integrated Confirmatory Order Table**
 - [Link to 09/28/2018 Table ML18275A120](#)
 - [Link to 01/30/2019 CO Table ML19032A026](#)
- **Bluewater Uranium Mill Site update & topics**
 - [Link: 01/24/2018 DOE letter \(ML18026A625\)](#)
 - [Link: 5/24/2018 NRC letter to DOE - Bluewater](#)
 - [Link: 12/21/2018 DOE letter to NRC](#)
 - [Link: 3/20/2019 DOE letter 2017 BW U plumes in SAG \(ML19081A120\)](#)
 - [Link: 2/28/2019 2017 BW U plumes in SAG report \(ML19081A121\)](#)
- **Other Comments/Question:**

- **Next Date for Community Call? June 26, 2019?**
- **Community questions**

1. **Question:** For how long and how badly will Zeolite treatment need to fail before NRC pulls the plug on that apparently ineffective idea?

Answer: While the zeolite system has not operated in the past with the efficiency for which it is rated, the zeolite system is treating offsite water contaminated with uranium. For the 1st half of 2018, the combined zeolite system was reported to have operated at 261 gallons per minute (gpm) and the treatment system processed approximately 60 million gallons of effluent (Agencywide Documents and Management System (ADAMS) Accession No. ML18240A228). For the 2nd half of 2018, the combined zeolite system was reported to have operated at 283.4 gpm and the treatment system processed approximately 64 million gallons of effluent (ADAMS Accession No. ML19064B127). Even though the zeolite system is not operating at its designed capacity, it continues to operate and remediate water contaminated with uranium above the groundwater protection standards.

2. **Comment:** BVDA requests additional information and opposes the request to adjust groundwater monitoring at the site. This is just common sense. HBG and NRC need to continue using the current monitoring system even if they add additional monitoring wells. Clearly the contamination ebbs and flows. It would be ridiculous not to continue monitoring the areas that HBG claims have been cleaned to see what happens in the future in those areas. This is a very problematic request and we will follow this action carefully.

Response: In the groundwater monitoring plan license amendment request dated November 20, 2017 (ADAMS Accession No. ML18018A102), the licensee is not requesting the removal of any restoration areas from monitoring. However, the licensee proposed removing two monitoring wells from the license because of a lack of access and substituting several reversal wells to better define the groundwater gradient. As described under License Condition 35, the licensee shall implement a groundwater compliance monitoring program as described under License Condition 35A. This current groundwater compliance monitoring well network consists of 35 wells.

The November 20, 2017, groundwater monitoring plan license amendment is requesting to update coverage for all the restoration areas at the site. This license amendment request was supplemented by additional information on October 18, 2018 (ADAMS Accession No. ML18298A019), in response to an NRC request for additional information (RAI) dated September 28, 2018 (ADAMS Accession No. ML18214A218). The proposed groundwater compliance monitoring network in the licensee's groundwater monitoring plan license amendment request expands the number of wells to 107 and updates the coverage of monitoring for the restoration areas, as shown in Figures 2-2, 2-3, 2-4, and 2-5 of the November 20, 2017, submittal. As discussed in the November 20, 2017, submittal, these wells were already part of the monitoring network and are currently being sampled. This amendment request will change the status of 72 of the current onsite wells from monitoring wells to compliance monitoring wells.

In the September 28, 2018 RAI, NRC staff requested additional information regarding the monitoring period after cessation of corrective actions to verify that contaminant concentrations do not rebound after groundwater restoration activities have been completed. NRC staff also requested additional information on the licensee's strategy to consolidate the groundwater monitoring program as restoration of the groundwater is completed. The licensee responded,

HMC plans to monitor the compliance wells in an area where the restoration is deemed to be completed at a quarterly frequency for two years after cessation of corrective action to verify stability of the water quality. The samples will be analyzed for all site standard constituents. An evaluation of the stability of the groundwater quality in the restored area will be conducted. This evaluation of the groundwater quality stability will include a determination if these compliance monitoring wells can be removed from the groundwater monitoring program. Presently, the seven wells in the Western Portion of the North Off-Site Wells are being sampled at a quarterly frequency for two years for all alluvial groundwater site standard constituents. An evaluation is expected to be conducted and submitted in 2020 to determine if these wells should be removed from the compliance monitoring program.

The proposed monitoring period of two years after cessation of corrective actions is consistent with NMED's requirements in Discharge Plan 200. For wells to be removed from the groundwater compliance monitoring well network as groundwater restoration is completed, the licensee will need to request a license amendment and the NRC staff will verify that restoration activities are complete and water quality levels are stable.

3. **Comment:** Likewise radiation monitoring will be an important ongoing issue for those of us who live so close to this site. Since BVDA is not privy to the private internal discussions mentioned in HBG's withdrawal letter, we cannot comment on specifics at this point, but one thing of which NRC should remain cognizant is the need for an on-site weather monitoring station to show exactly how wind conditions work in this low-lying area between two mountain ranges. Our members understand the wind conditions but NRC needs to have reliable data in order to make appropriate future decisions on radon monitoring.

Response: Downwind and upwind radon gas monitoring is already part of HMC's environmental monitoring program. Radon monitoring locations are shown in Figure 1, "HMC Air Monitoring and Sampling Locations – Grants, NM" of its semi-annual environmental monitoring report for the period July to December 2018 (ML19064B127). These locations are in accordance with NRC Regulatory Guide 4.14, "Radiological Effluent and Environmental Monitoring at Uranium Mills," and were placed in consideration of average meteorological conditions, including prevailing wind directions. The NRC staff has not requested additional on-site meteorological data.

4. **Comment:** We also ask that NRC reserve comment and judgements about HBG's new groundwater flow and transport model until George has a chance to engage our experts on June 18th at the technical meeting between MASE/BVDA experts and the USEPA.

Response: The NRC staff will not be able to fully evaluate the groundwater flow and transport model until the Groundwater Corrective Action Plan is submitted in December 2019. NRC staff will review information provided by MASE/BVDA experts and the USEPA.

5. **Comment:** BVDA appreciates NRC's interaction with HBG regarding Well 943, specifically working to assure Well 943 is not capable of posing a substantial present or potential hazard to human health or the environment. This could be demonstrated by additional monitoring of the SAG downgradient from Well 943 and/or an analysis demonstrating that contamination from Well 943 is not risk significant; and we look forward to hearing more about the results of that monitoring.

Response: The licensee responded on May 10, 2019 (ADAMS Accession No. ML19143A097) to NRC's letter dated January 24, 2019 (ADAMS Accession No. ML19002A503). The NRC staff is evaluating the licensee's response.

6. **Question:** Finally, may we have the answer to our question about why HBG is not required to increase RO [reverse osmosis] capacity in order to actually and finally clean the contamination that has trespassed from their site into our water?

Answer: Like the zeolite system, the RO system has not operated at the 1,200 gpm efficiency for which it is rated. For the 1st half of 2018, the licensee reported that the RO system operated at an average of 435 gpm. For the 2nd half of 2018, the licensee reported that the RO system operated at an average of 540 gpm. The licensee continues to perform maintenance on the RO system to increase the efficiency. As reported in NRC Inspection Report 040-08903/2018-002 (ADAMS Accession No. ML18303A199), the licensee plans to conduct a pilot test by adding a polymer to the water entering the reverse osmosis units, to determine the effectiveness of the polymer in reducing the turbidity of the water and to protect the membranes of the reverse osmosis units. These efforts may increase the efficiency of the system, which has been less than 50% over the last year.